

Amendments to the Claims

Please cancel Claim 7 without prejudice or disclaimer.

Please amend Claims 1, 8, 9, and 11 to read as follows.

1. (Currently Amended) A method for manufacturing a liquid discharge head including a flow path which communicates with a discharge port used to discharge a liquid, and a substrate on which an energy generating element for generating energy that is used to discharge liquid is arranged, the method comprising:

providing, on the substrate, a first positive type photosensitive material layer that is exposed to ionizing radiation of a first wavelength;

providing, on the first positive type photosensitive material layer, a second positive type photosensitive material layer of a composition containing a copolymer of methacrylic anhydride and methacrylate ester on the substrate and that is exposed to ionizing radiation of a second wavelength that is different from the first wavelength;

heating the second positive type photosensitive material layer of the composition at a temperature of 120°C to 150°C;

patterning the heated second positive type photosensitive material layer of the composition to form a second solid layer for forming a part of the flow path by irradiating the ionizing radiation of the second wavelength to the second positive type photosensitive material layer;

irradiating the ionizing radiation of the first wavelength to the first positive type photosensitive material layer to form a first solid layer for forming another part of the flow path;

providing a coating layer so as to coat the first and second solid layer layers;

forming the discharge port reaching the second solid layer through a photolithographic process comprising exposing and developing the coating layer; and

removing the first and second solid layer layers to form a the flow path,

wherein a material used for the coating layer contains a cationically polymerizable chemical compound, a cationic photopolymerization initiator and an inhibitor of cationic photopolymerization.

2. (Previously Presented) A method according to claim 1, wherein the copolymer of methacrylic anhydride and methacrylate ester has a weight-average molecular weight of 20,000 to 100,000 and a ratio of a content of methacrylic anhydride of 5 to 30 weight% relative to the copolymer.

3. (Previously Presented) A method according to claim 2, wherein the methacrylate ester is a methyl methacrylate.

4. (Previously Presented) A method according to claim 1, wherein the inhibitor of cationic photopolymerization is a basic material having a pair of nonshared electrons.

5. (Previously Presented) A method according to claim 4, wherein the basic material is a nitrogen-containing compound.

6. (Previously Presented) A method according to claim 5, wherein the nitrogen-containing compound is an amine compound.

7. (Cancelled)

8. (Currently Amended) A method according to claim [[7]] 1, wherein a material for forming the first positive type photosensitive material layer contains polymethylisopropenylketone.

9. (Currently Amended) A liquid discharge head manufactured by a method according to claim 1, ~~wherein a discharge port formation material used for forming the discharge port for the liquid discharge head contains a cationically polymerizable chemical compound, a cationic photopolymerization initiator and an inhibitor of cationic photopolymerization.~~

10. (Previously Presented) A method according to claim 6, wherein the amine compound comprises triethanolamine.

11. (Currently Amended) A method according to claim 1, wherein the coating layer is applied on the first and second solid layer layers using a liquid mixture of methyl isobutyl ketone and xylene as a solvent, and in the photolithographic process, a part of the coating layer corresponding to the discharge port is removed using a liquid mixture of methyl isobutyl ketone and xylene as a liquid developer.

12. (Previously Presented) A method according to claim 1, wherein the composition includes a solvent.

13. (Previously Presented) A method according to claim 12, wherein the solvent is diglyme.